Subject: [Fwd: outreach]

From: Spencer Klein <SRKlein@lbl.gov>

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Date: Mon, 31 Jan 2005 18:10:26 -0800
To: JWKwan@lbl.gov
----- Original Message -----
Subject: outreach
Date: Tue, 25 Jan 2005 17:01:02 -0800
From: Alan W. P. Poon <AWPoon@lbl.gov>
To: SRKlein@lbl.gov
Spencer,
This is what I sent Peggy a couple of weeks ago, if you haven't had it
already.
Alan
Begin forwarded message:
 From: "Alan W.P. Poon" <AWPoon@lbl.gov>
 Date: January 10, 2005 11:45:59 PM PST
 To: Peggy McMahan Norris <P_McMahan@lbl.gov>
 Cc: Alan Poon <AWPoon@lbl.gov>
 Subject: Re: EPO activities
 Dear Peggy,
 I continue to work with the Community in the Classroom program with
 Community Resources for Science:
 http://www.crscience.org/cic_front.htm
  [yes, that's me in the picture!]
 During this year, I have visited a number of grade 5 classes in a number
 schools:
     Palma Ceia Elementary School, Hayward (2 classes)
     LeConte Elementary School, Berkeley (2 classes)
     Cragmont School, Berkeley (1 class)
     Lincoln Elementary School, Oakland (2 classes)
 At these schools, I run a 40-45 min. presentation on how to observe things
 that we can't see.
 I also visited my son's pre-school (Grand Lake Montessori) and did a
 30-min
 slide show on the Sun.
 alan
 On 1/10/05 6:45 PM, "Peggy McMahan Norris" <P_McMahan@lbl.gov> wrote:
   It's that time of year again. Please send me education/outreach
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activities you have done for the past year so I can write the fwp submission, plus any special plans you have for FY05 or beyond. (Rick, I guess your's should end on Aug 1 when you left the lab.)

Thanks,

Peggy

Alan W. P. Poon Office: +1 510-495-2467
Neutrino Astrophysics Group Fax : +1 510-486-6738
Institute for Nuclear & Particle Astrophysics
Mail Stop 50R5008
Lawrence Berkeley National Laboratory
1 Cyclotron Road, Berkeley, CA 94720, USA

2 of 2 2/10/2005 11:03 AM

Subject: [Fwd: Fwd: EPO activities] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:10:40 -0800

To: JWKwan@lbl.gov

Date: Tue, 25 Jan 2005 20:18:55 -0500 From: Howard Matis SRKlein@lbl.gov

Spencer,

Here is what is in the FTP for education.

Howard

Begin forwarded message:

From: Howard Matis <HSMatis@lbl.gov> Date: January 25, 2005 8:12:27 PM EST

To: Peggy McMahan Norris <P_McMahan@lbl.gov>

Subject: Re: EPO activities

Peggy,

Vice-President - Nuclear Physics - CPEP APS - Nuclear Physics Division - Education Committee

Updated Nuclear Science Chart to reflect latest developments
Updated Teacher's Guide
Advised Boy Scouts of America on new merit badge - Nuclear Science
Worked with numerous students around the nation to build and use the Berkeley Cosmic Ray Detector.

Invited Talk to January AAPT meeting "ABC's of Nuclear Science" to physics teachers who teach at Indian Reservations near Albuquerque.

Invited Talk to April APS meeting on Homeland Security

I would extract from the following Nuclear Physics Report on what we did

Examples of effective outreach efforts

As our goals are to expand and enhance outreach efforts throughout our society, we mention here a few existing efforts and comment on their applicability to these goals. **Contemporary Physics Education Project (CPEP)** (*http://www.cpepweb.org*)—This nonprofit organization of teachers and educators provides posters, charts, and Webbased materials on the fundamental nature of matter and energy. We admire the posters offered by CPEP and feel that they are certainly of value to high school and undergraduate physics teachers.

Guide to the Nuclear Wall Chart—This valuable resource, created by Lawrence

1 of 2 2/10/2005 11:04 AM

Berkeley National Laboratory (LBNL) and posted on the Web at http://www.lbl.gov/abc/wallchart/outline.html, has the motto, "You don't need to be a nuclear physicist to understand nuclear science." It includes a wide range of wellpresented topics from introductory and basic nuclear physics to industrial applications of nuclear science. Indeed, this resource is so versatile and well presented that its title seems somewhat limiting and unlikely to transmit the rich educational potential of the site. ...

Other university and national laboratory resources—Excellent resources exist at several nuclear science research centers. To name only a few, we note the sites at Michigan State University (http://nucoutreach.msu.edu), where students or teachers can search for educational resources in their state or local area; at LBNL (http://www.lbl.gov/abc), where "The ABC's of Nuclear Science" leads a visitor through a wide range of attractive and well-presented topics; ...

Howard

Invited Talk to January AAPT meeting "ABC's of Radiation" to physics teachers who teach at Indian Reservations near Albuquerque.

On Jan 10, 2005, at 6:45 PM, Peggy McMahan Norris wrote:

It's that time of year again. Please send me education/outreach activities you have done for the past year so I can write the fwp submission, plus any special plans you have for FY05 or beyond. (Rick, I guess your's should end on Aug 1 when you left the lab.)

Thanks,

Peggy

2 of 2 2/10/2005 11:04 AM

Subject: [Fwd: Additional educational activity] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:10:57 -0800

To: JWKwan@lbl.gov

------- Original Message -------Subject: Additional educational activity
Date: Tue, 25 Jan 2005 20:21:12 -0500
From: Howard Matis <hr/>
HSMatis@lbl.gov>
To: Peggy McMahan <p_McMahan@lbl.gov>, Spencer Klein <SRKlein@lbl.gov>
Peggy and Spencer,
Add the following to what I do.
Answer maybe 5 questions a week from students around the nation about

Howard

Nuclear Physics.

1 of 1 2/10/2005 11:04 AM

Subject: [Fwd: One more educational experience that I forgot to tell you]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:16:19 -0800

To: JWKwan@lbl.gov

This is what I helped out at. It went pretty well - we had \sim 50 teachers + students there.

Spencer

----- Original Message -----

Subject: One more educational experience that I forgot to tell you

To: Peggy McMahan < P_McMahan@lbl.gov>, Spencer Klein < SRKlein@lbl.gov>

We, the RNC group, ran a 1/2 day teacher workshop at Quark Matter in January of 2004.

Howard

1 of 1 2/10/2005 11:10 AM

Subject: [Fwd: activities]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:11:21 -0800

To: JWKwan@lbl.gov

----- Original Message -----

Subject: activities

Date: Tue, 25 Jan 2005 17:50:28 -0800 From: Jim Morel <JRMorel@lbl.gov>

Organization: Lawrence Berkeley National Laboratory

To: SRKlein@lbl.gov

Spencer,

I volunteer for the Science Bowl at LBL last year and this year.

Jim Morel

1 of 1 2/10/2005 11:06 AM

[Fwd: PJRobotics]

Subject: [Fwd: PJRobotics]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:12:31 -0800

To: JWKwan@lbl.gov

Although Jim is an NSF Staff Scientist, he lives in Port Jefferson, New York (his office/work is at Brookhaven National Lab). Port Jefferson is a town on Long Island. This is a high-school team.

Spencer

----- Original Message -----

Subject: PJRobotics

Date: Tue, 25 Jan 2005 19:01:05 -0800 From: Jim Thomas <JHThomas@lbl.gov>

To: SRKlein@lbl.gov

Hi Spencer,

I continue to coach the Port Jefferson Robotics Team.

Cheers, Jim

1 of 1 2/10/2005 11:06 AM

[Fwd: Activity]

Subject: [Fwd: Activity]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:15:48 -0800

To: JWKwan@lbl.gov

----- Original Message -----

Subject: Activity

Date: Thu, 27 Jan 2005 10:55:47 -0800 From: Lauren Boswell loswell@rpsweb.com

To: SRKlein@lbl.gov cc: jcerny@berkeley.edu

Dear Spencer,

For the workplace committee report, I chaired the NSAC Subcommittee on Education in Nuclear Science for 18 months, producing the report that you know about in November 2004. Thanks. Joe

1 of 1 2/10/2005 11:10 AM

Subject: [Fwd: x]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:13:29 -0800

To: JWKwan@lbl.gov

I also got a similar email from Ramona Vogt, Jorgens wife, and a long-term NSD visitor.

Spencer

----- Original Message -----

Subject: x

Date: Tue, 25 Jan 2005 21:27:39 -0800 From: Jorgen Randrup Randrup@LBL.gov

To: SRKlein@lbl.gov

CC: Jorgen Randrup < Randrup@LBL.gov>

At my daughter's school, The Academy, I serve as judge at the annual Science fair (usually in March). In additon I give a one-hour lecture on nuclear physics to the 8th grade.

/Jørgen.

1 of 1 2/10/2005 11:07 AM

Subject: [Fwd: workplace committee] **From:** Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:12:42 -0800

To: JWKwan@lbl.gov

----- Original Message -----

Subject: workplace committee

Date: Tue, 25 Jan 2005 19:22:26 -0800 From: Kevin Lesko <KTLesko@lbl.gov>

To: SRKlein@lbl.gov

CC: Kevin Lesko <KTLesko@lbl.gov>

Hi Spencer,

last year I hosted a "day at LBL for my son's 3, 4, 5th grade class. We had talks on neutrinos, accelerators, astrophysics, and research. About 25 kids, and 10 adults came. Kevin, Alysia Marino, Charles Currat, and a member of the Supernova group gave lectures. This year I will do this for my daughters 8th grade class (I also brought in her 3,4,5 grade class some years ago). I am also giving a talk at a career day at Del Mar Middle school in Marin in Feb.

Kevin

Kevin T. Lesko KTLesko@lbl.gov

Institute for Nuclear and Particle Astrophysics Tel: (510) 486-7731 Lawrence Berkeley National Laboratory FAX: (510) 486-6738 1 Cyclotron Road, MS 50R5008 http://ktlesko.lbl.gov Berkeley, CA 94720-8158, USA

1 of 1 2/10/2005 11:07 AM **Subject:** [Fwd: First responder training] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:13:42 -0800

To: JWKwan@lbl.gov

----- Original Message -----Subject: First responder training
Date: Wed, 26 Jan 2005 09:32:37 -0500

From: Schroeder, Lee <Lee.Schroeder@science.doe.gov>

To: 'SRKlein@lbl.gov' <SRKlein@lbl.gov>

Spencer:

Assuming that you are interested in FY 2004 outreach material (and not calendar 2004)-please include the training that the division, EH&S and Life Sciences gave to the city of Berkeley Fireman (the first responders) on 'radiological issues.' From the NSD it was: Rick Norman, Peggy McMahan, Howard Matis and myself; from EH&S it was Gary Zeman and Bob Fairchild; and from Life Sciences Eleanor Blakely. Peggy and Howard can give you more particulars-I don't have any of that with me at DOE. It consisted of training courses covering both the basic of radiation, radiation detection, accidental releases (e.g., from highway accident of vehicles carrying rad medical supplies) and info (not extensive) on 'dirty bombs.' Courses were given in two sessions in November 2003 and December 2003. The city of Berkeley sent a letter of appreciation to Director Shank and it was included in an article (I think for the APS Div. Of Physics and Society) on the subject of courses for first responders (mentioned Yale's and ours).

Tiee

1 of 1 2/10/2005 11:08 AM

Subject: [Fwd: Public outreach activities] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:15:16 -0800

To: JWKwan@lbl.gov

Mark Horner, Sarah Blythe and Heather Gray are 3 students from the University of Cape Town who are long-term visitors (i.e. for theses) to LBNL, who worked on this in South Africa, and continue to do so here.

Spencer

----- Original Message -------- Subject: Public outreach activities Date: Wed, 26 Jan 2005 15:37:41 -0800 From: Mark Horner <MJHorner@lbl.gov>

To: SRKlein@lbl.gov

Hi Spencer

I saw the email about public outreach activities and I have a suggestion.

There is a project (or at least there was) here in california which is trying to address certain issues in schools. Their page is:

http://www.opensourcetext.org/

Its very similar to my project:

http://www.nongnu.org/fhsst

The lab would be in super position to help with/run a similar project. From a publicity

point of view it would be great and it seems there is a need for such solutions even here

in california. I think it would also make more of a long-term than many other outreach initiatives (not that they aren't good).

There is a vast amount of content freely available on www.wikibooks.com (and other places) as well which can be used - at least if the license is right. This means that the lab wouldn't need to be the only source of content or volunteers.

Just a thought ...

Mark

1 of 1 2/10/2005 11:09 AM

Subject: [Fwd: outreach]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:13:55 -0800

To: JWKwan@lbl.gov

----- Original Message -----

Subject: outreach

Date: Wed, 26 Jan 2005 12:16:05 -0800

From: Norman K. Glendenning NKGlendenning@lbl.gov Organization: Lawrence Berkeley National Laboratory

SRKlein@lbl.gov

Spencer

Scientific American has placed an order for 600 copies of my book for the <u>layreader</u> AFTER THE BEGINNING (a cosmic journey through space and time) published by World Scientific and Imperial College Press (London) for their Book Club alternate for July.

I guess this is certainly an outreach. So is my book for the layreader.

Norman

1 of 1 2/10/2005 11:09 AM **Subject:** [Fwd: outreach]

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:11:09 -0800

To: JWKwan@lbl.gov

----- Original Message -----

Subject: outreach

Date: Tue, 25 Jan 2005 17:29:28 -0800

From: Peggy McMahan Norris < P_McMahan@lbl.gov>
Organization: Lawrence Berkeley National Laboratory

To: SRKlein@lbl.gov

Spencer,

I compile a list of activities plus a future plan for the fwp every year. Here is this year's draft, but I have to add some information from the Isotopes Project so its not final. I am also working with Rollie Otto on a briefing book for Dir. Chu of outreach activities going on in the divisions, but we decided for that we would use a sampling of a few people and their interests rather than going for completeness, in order to humanize it. People from NSD involved in that briefing will be myself, Howard Matis and Rick Firestone.

I've also attached last year's one-pager for DOE, FYI.

Peggy

1 of 1 2/10/2005 11:05 AM

Subject: [Fwd: updated education fwp attached] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:14:06 -0800

To: JWKwan@lbl.gov

----- Original Message ------Subject: updated education fwp attached
Date: Wed, 26 Jan 2005 12:56:46 -0800

From: Peggy McMahan Norris <P_McMahan@lbl.gov>
Organization: Lawrence Berkeley National Laboratory

To: Dianna Jacobs <DJacobs@lbl.gov>

CC: Janis Dairiki <JMDairiki@lbl.gov>, Spencer Klein <SRKlein@lbl.gov>

Added a few more things

Dianna,

Where are we on getting the Aeroflex UTMC paperwork out? Nancy knows its coming and a rush.

Thanks,

Peggy

1 of 1 2/10/2005 11:09 AM

Subject: [Fwd: Fwd: outreach activities] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:12:56 -0800

To: JWKwan@lbl.gov

------ Original Message -------- Subject: Fwd: outreach activities Date: Tue, 25 Jan 2005 21:09:32 -0800

From: EBNorman@lbl.gov
To: SRKlein@lbl.gov

Spencer,

Peggy can give you more info on both of these activities.

Rick

Subject: outreach activities **From:** <EBNorman@lbl.gov>

Date: Thu, 13 Jan 2005 16:50:07 -0800

To: p_mcmahan@lbl.gov

Hi Peggy,

I think the two outreach activities I was involved with last year were with you in the training of the firemen in the basics of nuclear science, and the two weeks I spent in July with the students from Cal Sate Fresno on neutron activation analysis.

Cheers,

Rick

Rick Norman, Eric B Norman < <u>EBNORMAN@LBL.GOV</u>> Senior Staff Physicist

Lawrence Berkeley National Laboratory

Nuclear Science Division

1 of 1 2/10/2005 11:07 AM

Subject: Outreac activities

From: Spencer Klein <SRKlein@lbl.gov> Date: Mon, 31 Jan 2005 18:09:11 -0800

To: JWKwan@lbl.gov

Joe:

I'm about to start forwarding the emails ${\tt I}$ received on outreach to you.

My own involvement is relatively minor. I gave a presentation at a Career Day at Longfellow middle school. I spoke to a reasonable proportion (20%) of minority kids, and probably 50:50 gender ratio.

I also helped (slightly) to organize the high-school teachers workshop that $\mbox{\tt Howard}$ mentions.

Spencer

1 of 1 2/10/2005 11:02 AM

Subject: [Fwd: [Fwd: Re: education activities]] **From:** Spencer Klein <SRKlein@lbl.gov> **Date:** Mon, 31 Jan 2005 18:16:32 -0800

To: JWKwan@lbl.gov

------ Original Message ------Subject: [Fwd: Re: education activities]
Date: Mon, 31 Jan 2005 16:50:16 -0800

From: Peggy McMahan Norris <P_McMahan@lbl.gov>
Organization: Lawrence Berkeley National Laboratory

To: Spencer Klein <SRKlein@lbl.gov>

Subject: RE: education activities

From: Rick Firestone <RBFirestone@lbl.gov>

Date: Thu, 20 Jan 2005 12:26:10 -0800

To: Peggy McMahan Norris <P_McMahan@lbl.gov>

Hi Peggy:

Yes, it would be good to mention my education and outreach efforts in the fwp. This is barely mentioned in the Isotopes Project fwp and no details are given. Here is a summary of my efforts.

I have an educational website at http://ie.lbl.gov/education/glossary/slossaryf.htm and http://ie.lbl.gov/education/glossary/glossaryf.htm and http://ie.lbl.gov/education/glossary/glossaryfa.htm were developed by Howard Matis' son and is very popular. This website is widely used by all kinds of people, but I've noticed particular interest from Middle School teachers who use this site as a starting point for discussing isotopes.

My main website at http://ie.lbl.gov/toi.html provides links to nuclear structure and radioactive decay data, neutron capture data, references, and other information that are used by nuclear scientists, students, and laymen. These websites receive several million hits annually.

My periodic table is available at http://ie.lbl.gov/toipdf/per00_c.pdf

In addition, I've had a cooperative agreement with EVITech (Finland) for several years to provide practical training for their students. They send an average of one student for several months each year, with full support, who typically works on a computer project for me.

In FY06-07 I plan to update the educational information and develop new, interactive applications. One application would be teach students how to calculate atomic weight from isotopic abundance. Other possibilities include a module on actinide decay chains and one on s-process nucleosynthesis.

Let me know if you need more information.

Regards,

Rick

----Original Message----

From: Peggy McMahan Norris [$\underline{\text{mailto:P_McMahan@lbl.gov}}$]

Sent: Thursday, January 20, 2005 10:48 AM

1 of 2 2/10/2005 11:11 AM

[Fwd: [Fwd: Re: education activities]]

To: Richard B Firestone Subject: education activities

Hi Rich,

Every year I write a section on education and outreach for the fwp and include activities for the year and I have never included your group's activities. Do you want to send me a list plus plans for FY06-07?

Peggy

2 of 2 2/10/2005 11:11 AM